

Environmental Management Performance Report

June 2002



**Pacific Northwest
National Laboratory**

Operated by Battelle for the
U.S. Department of Energy



Department of Energy
Richland Operations Office

PREPARED FOR THE U.S. DEPARTMENT OF ENERGY, RICHLAND OPERATIONS OFFICE
OFFICE OF ENVIRONMENTAL MANAGEMENT

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Introduction

This document provides the Department of Energy Richland Operations Office (DOE-RL) with a report of the Pacific Northwest National Laboratory (PNNL) performance by Battelle Memorial Institute and its subcontractors.

In Section A, the Executive Summary, text and graphics report the safety metrics status for all PNNL activities. Senior management's overall performance assessment of all Environmental Management activities conducted at PNNL is presented in a stoplight chart.

Section B, Project Performance Summary, provides a brief summary of the month's performance for the PNNL lead activity, PNNL Waste Management (PBS RL-SS01), and is presented in the narrative and Cost / Schedule Performance Stoplight. More detailed information can be found within PNNL-7911-123a, PNNL's Quarterly Project Status Report, for the third quarter of Fiscal Year (FY) 2002. Summary analyses pertaining to PNNL's support to other Project Baseline Summaries (PBSs) are addressed in the contractor's report having lead responsibility for that scope.

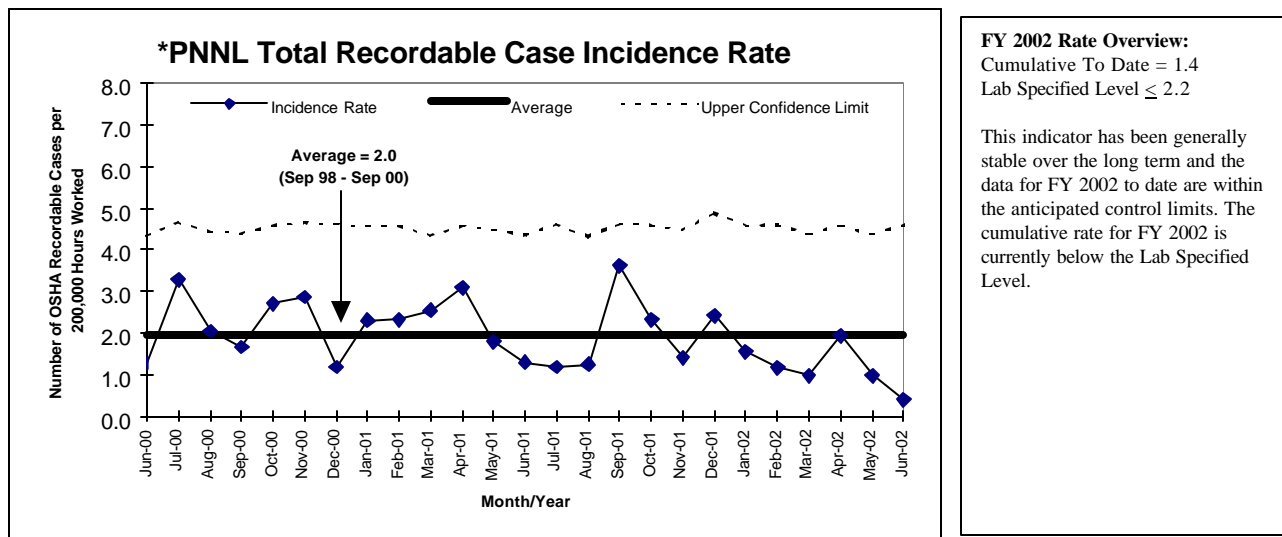
Unless otherwise noted, information in this report is current as of June 30, 2002.

This section provides an executive-level summary of performance information and is intended to bring to management's attention that information considered to be most noteworthy. This section includes an overview of safety performance and assessment spotlight charts.

Safety Overview

The focus of this section is on documenting trends in lab wide work-related injury and illness rates. These are the same performance indicators as appear in the FY 2002 Battelle Performance Evaluation and Fee Agreement, which is part of the PNNL Operations Contract. The monthly rates for Recordable and Lost Workday cases are presented graphically in this section and are monitored for statistically significant changes. Current efforts to improve performance are being made through the implementation of the Integrated Safety Management System (ISMS) and Voluntary Protection Program (VPP).

Total Recordable Case Incidence Rate



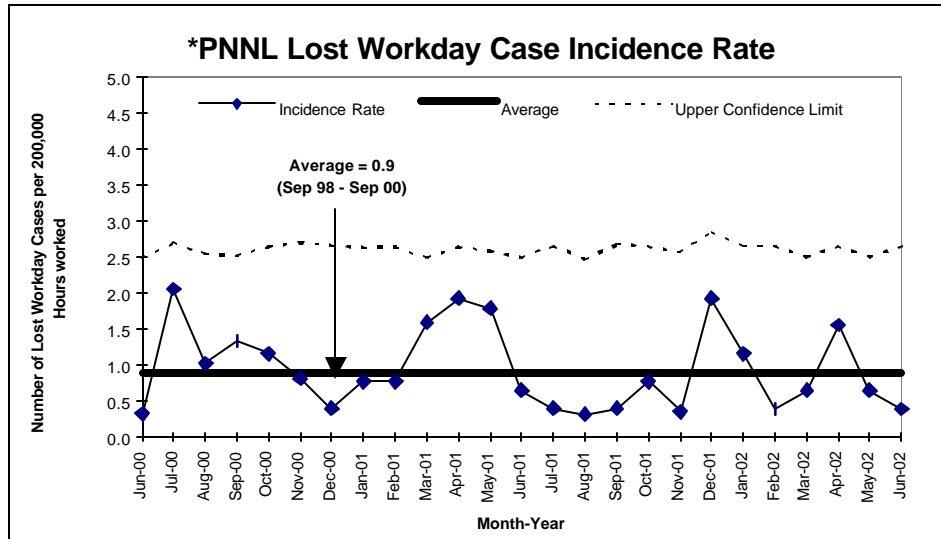
The following rating reflects the overall assessment of recordable case incidence for PNNL. *(Narrative not required when rating is green.)*

| | |
|--|--------------|
| | GREEN |
|--|--------------|

*Includes all PNNL Operations.

| | | |
|---------------------|--|---------------------|
| Green: Satisfactory | Yellow: Significant improvement required | Red: Unsatisfactory |
|---------------------|--|---------------------|

Lost Workday Case Incidence Rate



FY 2002 Rate Overview:
 Cumulative To Date =0.8
 Lab Specified Level ≤ 1.1

This indicator has been generally stable over the long term. The data points for FY 2002 to date are within the anticipated control limits. The cumulative rate for FY 2002 is currently below the Lab Specified Level.

The following rating reflects the overall lost workday case incidence for PNNL. (*Narrative not required when rating is green.*)

*Includes all PNNL Operations.



Green: Satisfactory

Yellow: Significant improvement required

Red: Unsatisfactory

ISO 14001 Registration

PNNL undertook the effort to gain ISO 14001 registration this year in order to complete the “Triple Crown” of environmental safety and health standards. ISO 14001 standards are used worldwide and are agreements containing technical specifications to consistently be used as rules or guidelines to ensure that products, processes and services are fit for their purpose. The “Triple Crown” consists of three elements – Integrated Safety Management (ISM), the Voluntary Protection Program (VPP) and ISO 14001. The laboratory has already earned ISO validation and VPP Gold Star Status and plans to have ISO 14001 certification by the end of 2002.

This section provides cost and schedule performance, any significant issues, baseline change request information for the period covered, and quarterly status on baseline performance outcomes, objectives, and measures. In FY 2002, Battelle Memorial Institute has lead responsibility over PBS RL-SS01, PNNL Waste Management WBS 3.4.1.7.

Mission

WBS 3.4.1.7 provides PNNL with waste management services and compliant operations in support of science and technology development for the multiprogramming needs of the U.S. Department of Energy (DOE) Complex. These services include:

- Essential surveillance and maintenance of DOE laboratory facilities assigned to PNNL for safe containment of radioactive and hazardous materials.
- Infrastructure required to manage wastes and effluents currently generated at the PNNL.
- Operational compliance services to meet regulatory requirements and operating permits including environment, safety, and health regulations.
- Management of legacy wastes and contamination remaining from past PNNL research operations.

Activity Summary

The following summarizes the activities associated with PNNL Waste Management services and operations conducted during June 2002.

- Scheduled Radiochemical Processing Laboratory (RPL) radiological surveys and nuclear control inspections were performed. Activities pertaining to the surveillance and maintenance of all shutdown facilities are on track. Shutdown facility inspections were completed at the 306-W Powder Lab, 213-J, 331-B, and the 331 kennels. No issues were found.
- All required radiological air samples were collected and confirmed that all routine effluent discharges from PNNL operations reported to date are below historical release levels and compliant with existing state and federal permits.
- During June, 83 NEPA reviews were performed. The Packaging and Transportation staff members supported 33 shipments including 8 radioactive shipments offsite, 11 radioactive shipments onsite and 14 hazardous material shipments onsite and offsite. Also in June, the Hazardous Waste Operations Task staff members packaged 46 drums for shipment and picked up 639 waste items. The monthly review of PNNL's chemical inventory was conducted and the review confirmed PNNL remains below the threshold planning quantity reporting levels for all toxic chemicals.
- Approximately 40 legacy waste projects and tasks are currently scheduled for completion in FY 2002. Work on 35 legacy tasks have resulted in 225 items (drums and boxes) made ready for final disposal. Work was completed in the legacy waste management of over 550 items (radioactively

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Section B - Project Performance Summary

contaminated samples such as vials containing liquid, cans containing miscellaneous debris from hoods and glove boxes, solid materials contaminated with Uranium, plutonium and fission products, etc.), located in RPL, Room 517.

Performance Data and Analysis

As of June 30th, 2002, the cumulative costs are \$9.9M with a positive cost variance of \$.9M (9%) and a cumulative schedule variance of negative -.8M (-7%). The cumulative cost variance is largely due to labor costs, specifically, unfilled vacancies and programmatic efficiencies. This variance is anticipated to extend through fiscal year end and is expected to complete under budget. The WMOC Program Office is currently evaluating unfunded priority items to redistribute available funds via change control and weighing that against anticipated FY03 funding shortfalls.

The cumulative schedule variance is due to delays with the 331-B Building demolition, updating the Facility Effluent Monitoring Plan (FEMP) documents and self-assessments, and delays in conducting stack studies under the Radiological Air Emissions Task. It is anticipated the scope will be completed as scheduled.

| Cost Performance (\$M): | | | |
|------------------------------------|-------------|-------------|-----------------|
| | BCWP | ACWP | Variance |
| PNNL Waste Management | \$10.8 | \$9.9 | \$.9 |
| Schedule Performance (\$M): | | | |
| | BCWP | BCWS | Variance |
| PNNL Waste Management | \$10.8 | \$11.7 | (\$.8) |

FY 2002 Cost/Schedule Performance - All Fund Types **Cumulative to Date Status - (\$000)**

| WBS | PBS | BCWS | BCWP | ACWP | CV | % | SV | % |
|--------------|------------|-----------------|-----------------|-----------------|--------------|----------|----------------|-----------|
| 3.4.1.7 | RL-SS01 | <u>\$11,698</u> | <u>\$10,827</u> | <u>\$9,886*</u> | <u>\$941</u> | <u>9</u> | <u>(\$870)</u> | <u>-7</u> |
| Total | | <u>\$11,698</u> | <u>\$10,827</u> | <u>\$9,886*</u> | <u>\$941</u> | <u>9</u> | <u>(\$870)</u> | <u>-7</u> |

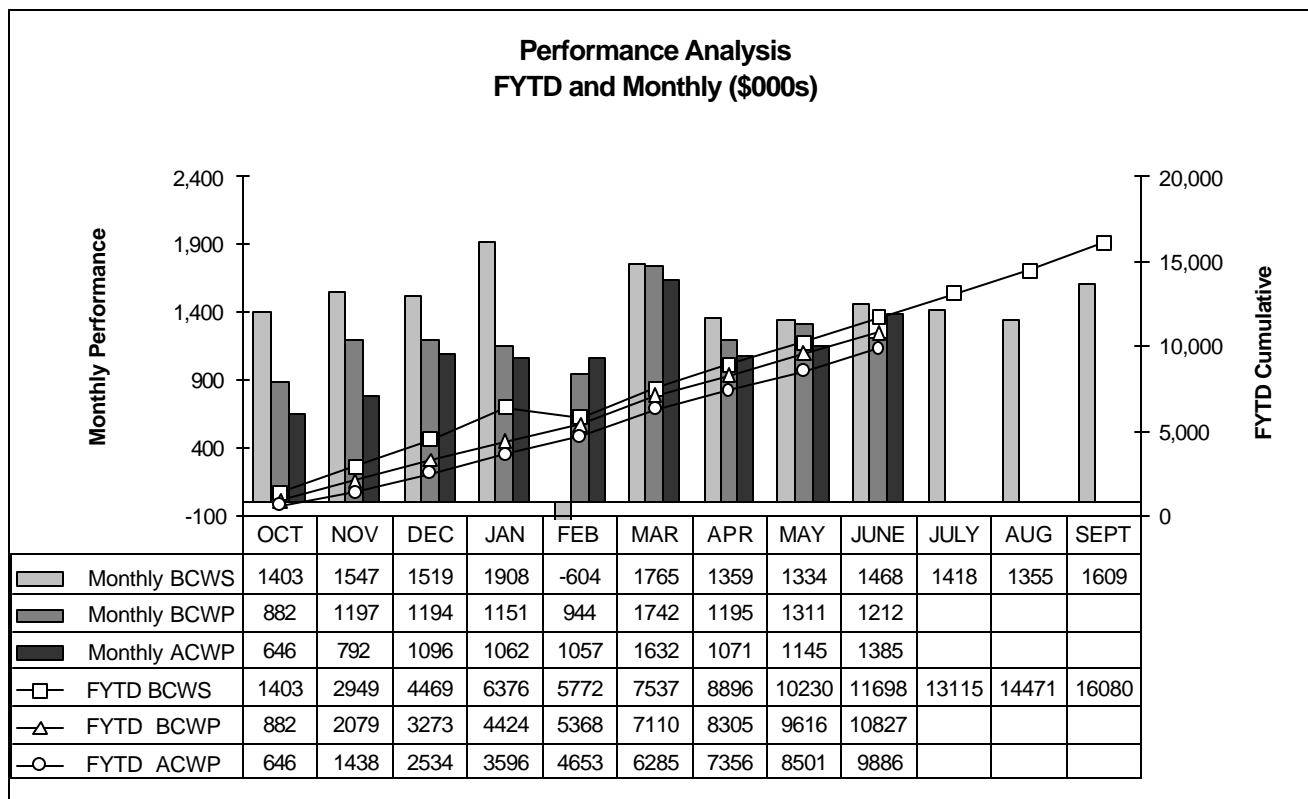
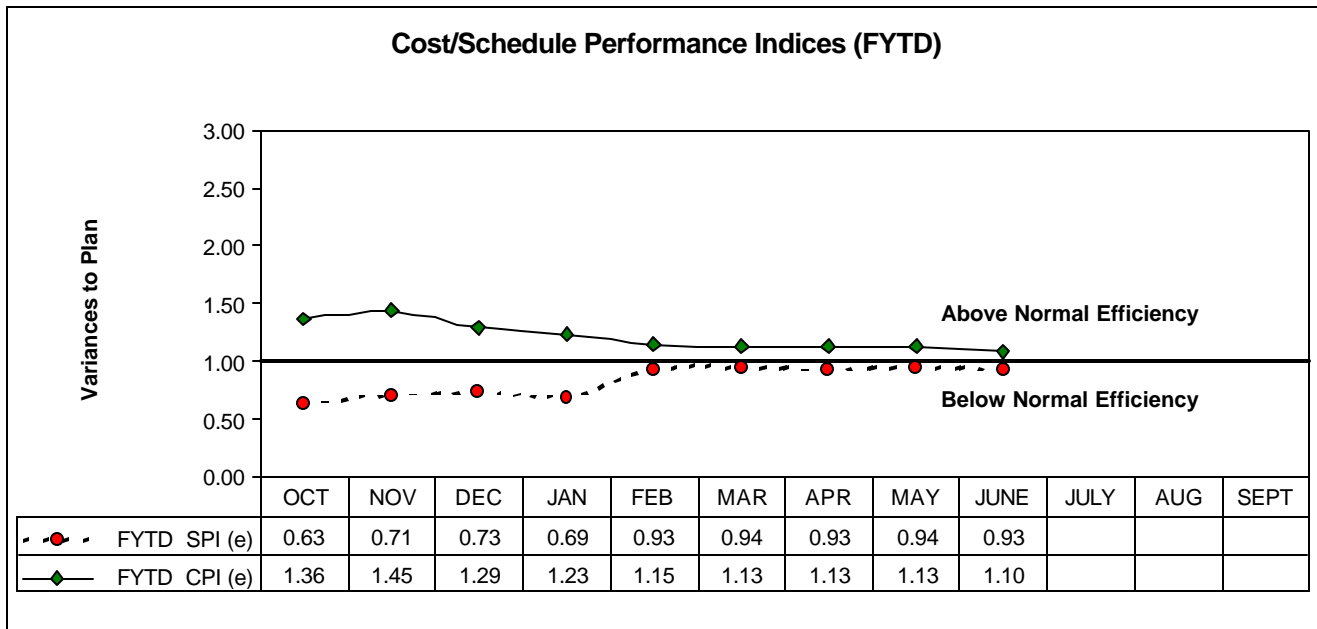
*PNNL has \$1.194M carryover, is expecting \$15.044M new B/A in FY 2002, for a total of \$16.238M. Current new B/A obligated is \$13,599M.

Cost/Schedule Performance Stoplight

The following rating reflects overall cost and schedule performance for PNNL Waste Management activities. *(Narrative not required when rating is green.)*

| | | |
|---|--|---------------------|
| The cumulative cost variance is within the reporting threshold. | | GREEN |
| The cumulative schedule variance is within the reporting threshold. | | |
| Green: Satisfactory | Yellow: Significant improvement required | Red: Unsatisfactory |

PNNL Performance Data and Analysis



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| RL Objective | RL Multi-Year Performance Measure | Performance Measure | FY 2002 EM Commitment: Y/N | TPA # CMM# | FY 2002 |
|--|---|---|----------------------------------|---------------|--------------|
| RL Outcome: Put DOE assets to work for the future | | | | | |
| Operational Excellence Status: | Operate in a manner conducive to excellence and quality | Conduct routine operational activities to comply with statutory and regulatory requirements, specifically number of non-compliances related to environmental permit requirements There were no Notice of Violations (NOVs) issued to PNNL during the third quarter of FY-2002. Resulting in a total of zero NOVs for the first three quarters of FY-2002 | No | | <2 |
| Operational Excellence Status: | Operate in a manner conducive to excellence and quality | Maintain fiscal year end cost and schedule variances within established thresholds The WMOC Program cost variance (CV) for the third quarter is \$235K (6%), and the cum CV is \$941K (9%). The schedule variance (SV) for the third quarter is \$-444K (-11%) the cum SV is \$-870K (7%). Cumulative variances are within the established performance thresholds. | No | | +/- 10% |
| Safety Status: | Protect workers, the public and the environment | Initiate appropriate response to any unsafe condition identified during surveillance and maintenance of EM facilities assigned to PNNL within x days of discovery (as shown to the right) To date surveillances have not identified any unsafe conditions in shutdown facilities. Only minor maintenance items have been noted and they have been appropriately addressed with service requests. No unsafe conditions have been discovered in RPL that have resulted in an appropriate response initiation greater than one day. Any unsafe condition discovered in RPL is addressed immediately. | No | | 1 |
| Safety Status: | Protect workers, the public and the environment | Quantity of HAZ waste (MT) shipped for storage or disposal During the third quarter of FY 2002, 7,977 Kgs. of non-radioactive hazardous wastes were shipped. A total of 18,801 Kgs. have been shipped for offsite treatment and disposal this fiscal year. This is in line with expected generation rates for FY 2002. | No | | 25,000 kg/FY |
| Safety Status: | Protect workers, the public and the environment | Quantity of RMW (m ³) shipped for storage or disposal. During the third quarter of FY 2002, 8.23 cubic meters of RMW (Mixed Waste) were shipped for a total of 11.35 cubic meters for the fiscal year. | No | | 25 |
| RL Outcome: Put DOE assets to work for the future | | | | | |
| Safety Status: | Protect workers, the public and the environment | Quantity of LLW (m ³) shipped for storage or disposal During the third quarter of FY 2002, 21.784 cubic meters of LLW (Low Level Waste) were shipped | No | | 125 |

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| RL Objective | RL Multi-Year Performance Measure | Performance Measure | FY 2002 EM Commitment: Y/N | TPA # CMM# | FY 2002 |
|---|---|--|----------------------------------|---------------|------------------------------|
| | | for a total of 36.008 cubic meters for the fiscal year. | | | |
| Safety Status: | Protect workers, the public and the environment | Quantity of TRU waste (m ³) shipped for storage or disposal During the third quarter of FY 2002, 8.23 cubic meters of TRU (Transuranic waste) was shipped for a total of 17.64 cubic meters for the fiscal year. | No | | 8 |
| Safety Status: | Protect workers, the public and the environment | Radiochemical Processing Lab (RPL) Authorization Basis maintained current per scheduled milestone FY 2002 annual update to the RPL SAR/TSR submitted to DOE on May 31, 2002 (due 7/31/02) for review, comment, and approval. Development of the Documented Safety Analysis (DSA) required by 10 CFR 830 Subpart B has begun. Currently no safety issues exist in the RPL. As issues are identified, they are immediately addressed and mitigated. | No | RLSS01R204 | 7/31/02 |
| RL Outcome: Restore the river corridor for multiple uses | | | | | |
| Waste Disposal Status: | Dispose of Legacy Waste | Percent completion of annually scheduled legacy waste projects. Up through the third quarter of fiscal year 2002, 75.36% of the Legacy Waste Projects have been completed. | No | | >90% |
| Waste Disposal Status: | Disposal of Special Case Waste Complete | Support timely completion of TPA M-92-14: Complete disposition of PNNL Special Case Waste. The waste was shipped in March 28, 2002. Completing this performance outcome. | No | RLSS01L211 | 03/30/2002 03/28/2002 |
| Reduce risks to the Columbia River from ground water contamination Status: | Number of soil sites addressed | Percentage of Waste Identification Data System sites characterized and associated surveillance/maintenance established. All waste sites have basic characterization data and identified S&M is being accomplished. | No | | 100% |